What about aerosolizing lidocaine to topicalize the airway?

We've been trying to simplify an approach to topicalizing the airway for what ever method you choose whether it be by VL, DL or using a flexible intubation scope. We've used the approach previously described (Recipe for awake topicalization) successfully numerous times in the ED in very challenging cases. Still many EDs do not stock atomizers or the required lidocaine preparations and frequently we get asked about mask aerosolizing lidocaine. The theory against this was that the droplet size for aerosolization are such that they target the lower airway compared to atomization which will lead to droplets 'raining out' in the upper airway. It has been suggested that by using a low flow source with the ubiquitously available mask aerosolizer you can get a similar effect as seen with an atomizer. I do not claim to know this literature well but it was worth a try. The video speaks for itself but the plan was to substitute low flow 4% aerosolized lidocaine for the EZ-spray atomizer. I still used the 5% paste to the posterior tongue. THIS IS A MUST for successful topicalization for laryngoscopy. The rest is about tracheoscopy and intubation. My experience was that after 10 min low flow at 4 lpm less than 1/3 of the 5cc of lidocaine had aeroslized. So we moved to 6lpm which technically is not low flow and all I could say was my lips were numb. Face mask open system delivery is not the way to go (in my opinion). A targeted atomized dispensing system works. We have to take the same care in drug choices, dossing and administration with awake topicalization as we do with RSI. Don't take short cuts in what are usually our most challenging cases; use the right gear and the right stuff to geter done!

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